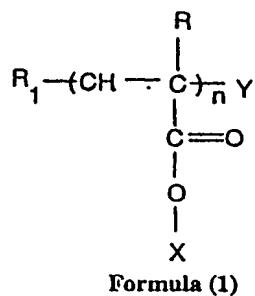


IN THE CLAIMS:

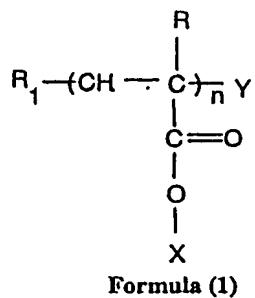
Claim 1 (currently amended) Functional A functional polyvalent oligomer having formula (1)²

Formula (1)



wherein R is H, CH₃, or C₂H₅, R₁ is H, NH₂ NH₂, OH, or COOH, X is *N-Acetyl* Glucosamine, mannose, galactose and sialic acid, fructose, ribulose, erythrocose, xylulose, psicose, sorbose, tagatose, glucopyranose, fructofuranose, deoxyribose, galactosamine, sucrose, lactose, isomaltose, maltose, cellobiose, cellulose and amylose; Y is H, COOH, OH or NH₂ NH₂, and n is from 3 to 50.

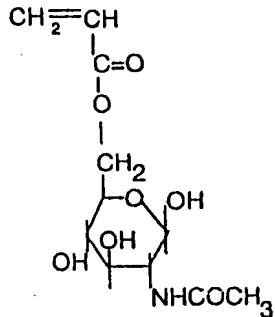
Claim 2 (currently amended) A process for the preparation of the functional polyvalent oligomer of the Formula (1)



wherein R is H, CH₃, or C₂H₅, R₁ is H, NH₂ NH₂, OH, or COOH, X is *N-Acetyl* Glucosamine, mannose, galactose and sialic acid, fructose, ribulose, erythrose, xylose, psicose, sorbose, tagatose, glucopyranose, fructofuranose, deoxyribose, galactosamine, sucrose, lactose, isomaltose, maltose, cellobiose, cellulose and amylose; Y is H, COOH, OH or NH₂ NH₂, and n is from 3 to 50; which comprises dissolving a monomeric NAG monomer in a solvent and adding a chain terminating transfer agent to obtain a solution with molecules of different molecular weights, adding an initiator and accelerator to the solution, allowing the reaction for a period of 24 hrs to 48 hrs to form a reaction mixture, bringing the temperature of the reaction mixture to 50 to 60°C, precipitating the product from the reaction mixture using a non solvent, vacuum drying the product for 48 hrs, a time sufficient to obtain said functional polyvalent oligomer.

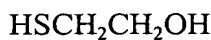
Claim 3 (currently amended) A process as claimed in claim 2, wherein the monomer used is NAG, is Acryloyl NAG or Methacryloyl NAG.

Claim 4 (currently amended) A process as claimed in claim 3, wherein said monomer is Acryloyl NAG having the formula 2



Formula (2)

Claim 5 (currently amended) A process as claimed in claims 4, wherein said chain transfer transfer agent is a mercapto ethanol having the formula 3:



Formula 3

Claim 6 (currently amended) A process as claimed in claim 2, wherein the solvent used to dissolve the monomeric ligand monomer is selected from the group consisting of water, methanol, ethanol dimethyl formamide, tetra hydro furon or dimethyl sulfoide.

Claim 7 (currently amended) A process as claimed in claim 2, wherein the chain transfer agent is selected from the group consisting of Mercapto Ethanol, Mercapto Propionic Acid, Mercapto Amine, and Mercapto Propanol.

Claim 8 (currently amended) A process as claimed in claim 2, wherein said initiator is selected

from the group consisting of ammonium per sulphate (APS), potassium per sulphate (KPS), or azo bis iso butyro nitrile (AffiN), 4,4 azobis (4-cyanopentanol), 4,4 azobis (4-cyanovaleric acid), or and 3,3 azobis (3-cyanovaleric acid).

Claim 9 (currently amended) A process as claimed in claim 2, wherein said accelerator is ~~selected from~~ N,N', N" tetramethyl ethylene diamine (TEMED).

Claim 10 (cancelled)

Claim 11 (currently amended) A process as claimed in claim 2, wherein said non solvent is ~~selected from~~ acetone, diethyl ether or hexane.

Claim 12 (currently amended) A process as claimed in claim 2, wherein the molecular weight of said oligomeris polyvalent oligomer is in a range from 400 Daltons to 4000 Daltons.

Claim 13 (currently amended) A process as claimed in claim 2, wherein the molar ratio of chain terminating transfer agent to monomer ~~NAG~~ for the synthesis of the functional polyvalent oligomer polymer is in the range of from 0.5:25 to 1:0.5, ~~preferably 1 to 25 to 1:20.~~

Claim 14 (new) A process as claimed in claim 2, wherein the molar ratio of chain transfer agent to monomer for the synthesis of the functional polyvalent oligomer is in the range of from 1 to 25 to 1:20.